

CMPT491E

SURFACE MOUNT

NPN SILICON TRANSISTOR



SOT-23 CASE

CentralTM

Semiconductor Corp.

DESCRIPTION:

The CENTRAL SEMICONDUCTOR CMPT491E type is an NPN silicon transistor manufactured by the epitaxial planar process, epoxy molded in a surface mount package, designed for high current, general purpose amplifier applications.

Marking Code is C49.

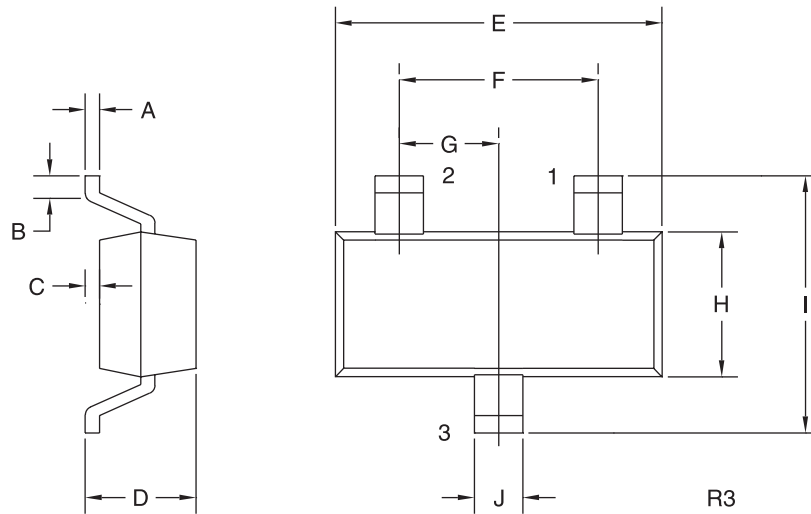
MAXIMUM RATINGS: (T_A=25°C)

	SYMBOL		UNITS
Collector-Base Voltage	V _{CBO}	80	V
Collector-Emitter Voltage	V _{CEO}	60	V
Emitter-Base Voltage	V _{EBO}	5.0	V
Collector Current	I _C	1.0	A
Base Current	I _B	200	mA
Collector Current (Peak)	I _{CM}	2.0	A
Power Dissipation	P _D	350	mW
Operating and Storage			
Junction Temperature	T _J ,T _{stg}	-65 to +150	°C
Thermal Resistance	Θ _{JA}	357	°C/W

ELECTRICAL CHARACTERISTICS: (T_A=25°C unless otherwise noted)

SYMBOL	TEST CONDITIONS	MIN	MAX	UNITS
I _{CBO}	V _{CB} =60V		100	nA
I _{EBO}	V _{EB} =4.0V		100	nA
BV _{CBO}	I _C =100μA	80		V
BV _{CEO}	I _C =10mA	60		V
BV _{EBO}	I _E =100μA	5.0		V
V _{CE} (SAT)	I _C =500mA, I _B =50mA		0.20	V
V _{CE} (SAT)	I _C =1.0A, I _B =100mA		0.40	V
V _{BE} (SAT)	I _C =1.0A, I _B =100mA		1.1	V
V _{BE} (ON)	V _{CE} =5.0V, I _C =1.0A		1.0	V
h _{FE}	V _{CE} =5.0V, I _C =1.0mA	200		
h _{FE}	V _{CE} =5.0V, I _C =500mA	200	600	
h _{FE}	V _{CE} =5.0V, I _C =1.0A	50		
h _{FE}	V _{CE} =5.0V, I _C =2.0A	15		
f _T	V _{CE} =10V, I _C =50mA, f=100MHz	150		MHz
C _{ob}	V _{CB} =10V, I _E =0, f=1.0MHz		10	pF

SOT-23 CASE - MECHANICAL OUTLINE



LEAD CODE:

- 1) Base
- 2) Emitter
- 3) Collector

MARKING CODE: C49

SYMBOL	DIMENSIONS			
	INCHES		MILLIMETERS	
	MIN	MAX	MIN	MAX
A	0.003	0.007	0.08	0.18
B	0.006	-	0.15	-
C	-	0.005	-	0.13
D	0.035	0.043	0.89	1.09
E	0.110	0.120	2.80	3.05
F	0.075		1.90	
G	0.037		0.95	
H	0.047	0.055	1.19	1.40
I	0.083	0.098	2.10	2.49
J	0.014	0.020	0.35	0.50

SOT-23 (REV: R3)